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## U.S. tested plutonium on humans

United Press International

WASHINGTON —

Scientists in a secret government project injected 18 men, women and children with overdoses of Plutonium three decades ago without telling the subjects what they were being given, federal researchers said Saturday.

Dr. James Liverman of the Energy Research and Development Administration said there is no evidence that any of the 18 subjects suffered ill effects from the experiment.

Science Trends, a newsletter, said present researchers who recently learned of the experiment find it ethically "reprehensible," but valuable

for what it taught about the effects of plutonium exposure.

Plutonium is considered one of the most toxic substances known. Even small amounts are capable of causing cancer.

But Dr. Patricia Durbin of Lawrence Berkeley Laboratory at Berkeley, Calif., said in Science Trends: "These cases serve to demonstrate the plutonium does not appear to be more carcinogenic than expected and, as far as bone (cancer) is concerned, may actually be less carcinogenic than expected."

Liverman expressed hope that the rediscovery of the 18 injection subjects, plus the cancer

free records of 25 persons exposed to plutonium in preparing early hydrogen bombs at Los Alamos, N.M., will help reduce fears about the danger of plutonium exposure in proposed nuclear breeder reactors.

The injection program was conducted between 1945 and 1947 to help determine safe exposure levels for those in the bomb program.

All 18 subjects, whose names ERDA will not disclose, were considered terminally ill at the time.

A spokesman said 13 of the test subjects were men and five were women, and that 15 were white and three black. Most were middle-age

adults, although ages ranged from 4 to 65, the spokesman said.

The plutonium injections were administered in the Strong Memorial Hospital at the University of Rochester in New York; the Billings Hospital at the University of Chicago; the hospital at the University of California in San Francisco; and a government hospital in Oak Ridge, Tenn.

The ERDA said the amount of plutonium injected ranged from two to 145 times the present maximum permissible dose for the human body.

Liverman said a black man who still lives in Texas was the only one to get the maximum dose.